

## Avelumab

## Chemical Properties

CAS No. : 1537032-82-8

Formula:

Molecular Weight: 143.8 kDa

Storage: Store at low temperature  
-20°C for 1 year

Actual storage temperature shall be subject to the COA.

## Avelumab

## Biological Description

Description	Avelumab is a humanized anti-PD-L1 monoclonal antibody that binds to PD-L1 with high specificity (Kd = 0.1 nM) and exhibits potential antibody-dependent cell-mediated cytotoxicity (ADCC). Avelumab exerts a dual mechanism of action, combining direct antitumor activity with ADCC. Avelumab is used in research on cancers such as Merkel cell carcinoma.
Targets(IC50)	PD-1/PD-L1
In vitro	<b>Methods:</b> Tumor cells were seeded onto E-Plates, then treated with NK cells and antibodies (10 µg/mL) at different ratios (1:5, 1:10, 1:50). xCELLigence real-time analysis monitored changes in cell index over 24-48 hours. <b>Results:</b> Avelumab induced stronger NK cell-mediated tumor cell killing (ADCC effect) in a dose-dependent manner. [1]
Animal Research	Female C57BL/6 mice are used in this study. Subcutaneous tumor injections are carried out by inoculating C57BL/6 mice with 1×10 <sup>5</sup> MB49 parental cells on the right shaved flank. Tumor growth is measured with calipers and 8 days post-inoculation mice are assigned to treatment groups. Tumor-bearing mice are treated with Avelumab (400 µg per 100 µL) and injected i.p. three times, 3 days apart. Since Avelumab is a human IgG1, three injections have to be compressed within a 7 to 9 day window (i.e., days 9, 12, and 15 post-tumor inoculation) to avoid the onset of neutralizing mouse anti-human Ig[3].

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	0.007 mL	0.0348 mL	0.0695 mL
5 mM	0.0014 mL	0.007 mL	0.0139 mL
10 mM	0.0007 mL	0.0035 mL	0.007 mL
50 mM	0.0001 mL	0.0007 mL	0.0014 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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